

Claim Listing
Pursuant to 37 C.F.R. § 1.121(c)(1)(ii)

1. (Currently amended) An in vitro method for detecting a cancer-associated marker protein present in a bodily fluid of a mammal ~~which method comprises the steps of~~ comprising:

(a) contacting a sample of bodily fluid from said mammal with antibodies directed against at least one epitope of said marker protein; and

(b) detecting the presence of any complexes formed between said antibodies and ~~any~~ the marker protein present in said sample;

wherein said antibodies are mammalian autoantibodies to said cancer-associated marker protein which are derived from the same species as the mammal from which said sample has been obtained.

2. (Currently amended) A ~~The method as claimed in~~ The method ~~of~~ as claimed in claim 1 wherein said sample is from a mammal substantially asymptomatic for pre-neoplasia or cancer.

3. (Currently amended) A ~~The method as claimed in~~ The method ~~of~~ as claimed in claim 1 wherein said sample is from a mammal symptomatic for cancer.

4. (Currently amended) A ~~The method as claimed in~~ The method ~~of~~ as claimed in claim 1 wherein said sample is from a mammal ~~which~~ that has received therapy for cancer.

5-51. (cancelled)

52. (New) The method of claim 1 wherein the mammal is a human and the autoantibodies are human autoantibodies.

53. (New) The method of claim 1 wherein the bodily fluid is plasma, serum, whole blood, urine, feces, lymph, cerebrospinal fluid or nipple aspirate.

54. (New) The method of claim 1 wherein the cancer-associated marker protein is associated with lymphomas, leukaemias, breast cancers, colorectal cancers, lung cancers, pancreatic cancers, prostate cancers, cervical cancers, ovarian cancers, endometrial cancers or cancers of the skin.

55. (New) The method of claim 54 wherein the cancer-associated marker protein is a breast cancer associated marker protein.

56. (New) The method of claim 1 wherein the cancer-associated marker protein is a modified MUC1, BRCA1, p53, c-myc c-erbP2 or Ras protein.

57. (New) The method of claim 55 wherein the cancer-associated marker protein is a modified MUC1, BRCA1, BRCA2, p53, c-myc, c-erbP2 or Ras protein associated with primary breast cancer.

58. (New) The method of claim 55 wherein the cancer-associated marker protein is a modified MUC1, BRCA1, BRCA2, p53, c-myc, c-erbP2 or Ras protein associated with advanced breast cancer.

59. (New) The method of claim 57 wherein the autoantibodies are obtainable from monocytes isolated from a patient with primary breast cancer.

60. (New) The method of claim 58 wherein the autoantibodies are obtainable from monocytes isolated from a patient with advanced breast cancer.

61. (New) The method of claim 1 wherein the autoantibodies are produced by an immortalized cell or cell population.

62. (New) The method of claim 1 wherein the autoantibodies are polyclonal antibodies.

63. (New) The method of claim 1 wherein the autoantibodies are immobilized on a solid surface.

64. (New) The method of claim 63 wherein any complexes formed between the autoantibodies and any cancer-associated marker protein present in the sample are detected using secondary antibodies or autoantibodies specific for at least one epitope of said marker protein, the secondary autoantibodies carrying a detectable label.

65. (New) The method of claim 63 wherein in addition to the sample a labeled cancer-associated marker protein is added carrying at least one epitope recognised by the autoantibodies.

66. (New) Use of the method of claim 1 to screen for recurrence of cancer after a treatment, to monitor systemic therapies or to select therapies.